



December 2, 2019

To: Regional Planning and Highways Committee
From: Darrell E. Johnson, Chief Executive Officer
Subject: Options for Future Express Lane Corridors in Orange County

Overview

The Orange County Transportation Authority 2018 Long-Range Transportation Plan's Short-Term Action Plan recommended an Express Lanes Network Study to identify planning and policy positions in response to an initiative by the California Department of Transportation to implement express lanes in Orange County. In May 2019, staff initiated this study, and a status report has been prepared.

Recommendation

Direct staff to return in spring 2020 with draft recommendations on a preferred approach to implementation of express lanes.

Background

As population and employment continue to grow in Orange County, congestion relief strategies are needed, but widening freeways is difficult primarily due to limited availability of land. Furthermore, high-occupancy vehicle (HOV) facilities are often congested and offer limited benefit to users. According to the 2017 California HOV Facilities Degradation Report and Action Plan, approximately 77 percent of Orange County HOV facilities do not meet federal operating standards. The California Department of Transportation (Caltrans) has considered increasing HOV occupancy requirements to three or more persons to improve speeds; however, Caltrans is concerned this may lead to underutilized HOV facilities.

Caltrans and other practitioners, such as the Southern California Association of Governments, have increasingly considered conversion of HOV facilities to tolled express lanes as a potential solution for addressing HOV performance standards. In this context, tolled express lanes typically allow vehicles with three or more persons to use the facility for free and offer any remaining capacity to other drivers

for a fee. This approach continues to incentivize carpooling for vehicles that meet the occupancy requirement while regulating demand to meet federal operating standards. Furthermore, it offers all motorists an option for a reliable travel time. However, it should be noted that tolled express lanes require certain conditions to be successful, and public opinion and existing policies must be considered.

Caltrans is required to identify strategies to address HOV facilities that do not meet the federal performance standards. Therefore, Caltrans District 12 developed the Orange County Managed Lanes Feasibility Study and Managed Lane Network Study to assess use of tolled express lanes as a strategy for meeting federal standards. Currently, Caltrans District 12 is conducting project-level studies to evaluate tolled express lane alternatives on Interstate 5 (I-5), approximately between State Route 55 and the Los Angeles/Orange County line. Caltrans District 12, in cooperation with the Transportation Corridor Agencies, is also developing the South County Traffic Relief Effort project, which includes several alternatives that propose tolled express lanes on various segments of I-5 south of Interstate 405 (I-405). Caltrans, as the owner and operator of the freeway system, has authority and responsibility to plan and implement these types of projects, subject to the Orange County Transportation Authority's (OCTA) approval as the county transportation commission. California Public Utilities Code Sections 130252, 130300, and 130303 require OCTA to exercise local leadership in multimodal transportation planning programming decisions (Attachment A). Specifically, Public Utilities Code Sections 130252 and 130303 grant OCTA the responsibility to approve the location and capacity of all capital development projects, including, but not limited to, exclusive public mass transit guideway systems, state highway projects, and federal-aid highway projects.

Discussion

Since 2003, OCTA has owned and operated the Orange County portion of the State Route 91 Express Lanes. Currently, OCTA is underway with the I-405 Improvement Project, which will add one regular lane in each direction between Euclid Street and Interstate 605 (I-605), and the 405 Express Lanes, which will incorporate the existing carpool lanes and a new lane in each direction between State Route 73 and I-605. As noted in the 2018 Long-Range Transportation Plan's Short-Term Action Plan, it is important for OCTA to continue to engage in planning efforts regarding express lanes.

Neighboring agencies, such as the Los Angeles Metropolitan Transportation Authority and the Riverside County Transportation Authority, have conducted long-term regional studies on tolled express lanes implementation. OCTA has been monitoring activities related to congestion management pricing strategies led by other agencies. However, as the County Transportation Commission and administrator of the Measure M Program, it is important for OCTA to consider a more proactive role in the development of express lane strategies.

In May 2019, OCTA staff initiated a 12-month Express Lanes Network Study to analyze the operational benefits and financial feasibility of tolled express lane network phasing alternatives in Orange County. The study also supports potential mainline capacity improvements that could accompany express lane implementation, but specific projects would be identified in subsequent studies. The study will ultimately identify OCTA's preferred tiered phasing priorities for tolled express lanes implementation and will be a resource plan in regional development of Orange County's tolled express lanes network.

Quantitative and qualitative factors will guide development of the strategy consistent with the draft goals and objectives in the table below.

Goal	Objective
Identify opportunity corridors	<ul style="list-style-type: none">a. Identify high-demand commute shedsb. Identify available capacityc. Leverage existing and planned express lanesd. Consider useful life of local tax measure projects
Improve corridor operations and reliability	<ul style="list-style-type: none">a. Reduce corridor daily delay from congestionb. Improve mainline peak period speedsc. Maintain free-flow speeds in express lanesd. Identify benefits to adjacent facilities
Ensure financial feasibility and corridor maintenance	<ul style="list-style-type: none">a. Demonstrate that revenues cover annual debt payments, financing requirements, and operations and maintenance costsb. Identify potential for excess revenues (subsequent studies to determine strategies for reinvestment in the transportation system)
Support local and regional goals	<ul style="list-style-type: none">a. Support community and economic development goalsb. Address social equity/environmental justicec. Improve air quality and reduce greenhouse gas emissions

Staff is analyzing several tolled express lanes network concepts to determine an initial prioritization based on the stated goals and objectives. The network concepts include a configuration consistent with the managed lanes network developed by Caltrans. Other network concepts to be explored focus on specific objectives, including extending existing/planned tolled express lanes, serving intercounty commuters, and leveraging existing direct-connector ramps. A technical memo detailing the network concepts is provided in Attachment B.

Throughout the study process, OCTA will hold one-on-one meetings with Orange County thought leaders and engage local jurisdiction staff and elected officials through roundtable workshops. Several one-on-one meetings were conducted in the fall and will continue throughout the study.

Stakeholder engagement is important to establish priorities and create awareness of potential future phases of express lane implementation.

Next Steps

The consultant, HNTB Corporation, is conducting high-level mobility and financial analysis of the study. These results will be refined and compared against the goals and objectives to recommend a preferred approach on the potential implementation of tolled express lanes. Staff will return to the Board of Directors in spring 2020 with an update of the results and recommendations.

Summary

OCTA initiated the 12-month Express Lanes Network Study in May 2019. The study will establish OCTA's priorities for tolled express lanes implementation by evaluating quantitative and qualitative factors against stated goals and objectives to determine a preferred approach.

Attachments

- A. California Public Utilities Code Sections
- B. Memorandum from Shaumik Pal, Greg Hulsizer, HNTB, to Stephanie Chhan, Orange County Transportation Authority, dated October 18, 2019, OCTA Express Lanes Network Study

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